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VOCATIONAL AGRICULTURE IN NORTH CAROLINA HIGH SCHOOLS

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INSTRUCTION in vocational agriculture for regularly enrolled high school pupils has been offered for several years in a number of white and colored schools of North Carolina. But the first systematic effort to extend the agricultural instruction in these schools to reach the young men, who had stopped school and were living on the farm, and adult farmers, was made during the school year, 1920-21.

Last year 644 adult farmers in twenty-six communities attended short courses for the purpose of gaining information that would enable them to do a better job of farming. Three hundred and twenty-one of this number were white farmers and three hundred and twenty-three were negroes. In addition to this number forty boys in farm communities between the ages of sixteen and twenty received instructions on better methods of farming. Plans already made by teachers for this year indicate that at least 2000 farmers will be enrolled.

The extension of the program of an agricultural department by giving part-time or short unit courses enables that department to give definite and practical training to every person in a community who needs it. The agricultural department is beginning to answer the need for a rural school adapted to the needs of the people of the community in which the school is located.

How was the short course work organized and conducted, and what were the results obtained?

The average age of the farmers who attended these courses was thirty-eight, and they had an average distance of one and six-tenths miles to go for the lessons. A majority of the classes were organized and started work in January. The courses ranged from eight lessons, which is the minimum requirement, to fourteen lessons in length. Whether the class met at night or in the afternoon on a particular day depended on the kind of work to be done and the wishes of the members of the class. About half the meetings of all the classes were held in the afternoon. The length of the periods varied from one-half hour to four hours, and the frequency of meeting of the classes varied from one lesson to three lessons a week.

The course in each school was organized and conducted under the supervision of the local teacher of agriculture. Various methods were used by the teach-

ers in organizing the classes. The usual procedure was for the teachers to visit the prospective farmers and explain the purpose and nature of the courses, announcement of the courses in the local papers and at community meetings. Later those who expressed interest in the course were asked to meet at the school to make detailed plans for the courses. Each teacher had in his possession accurate information concerning farming conditions in his community. This information was secured by taking a farm management survey of all farms in his community last fall. Data obtained by the surveys enabled the teacher to suggest needed courses. This data also formed the basis for a large part of the classroom instruction.

The demand for the work in one community came about as follows: The high school agricultural pupils who had animals projects exhibited their animals at the County Fair. The boys' animals took all the first prizes on hogs in competition with established swine breeders from three counties. A few weeks later a group of farmers in the community were discussing the record of the boys. One farmer said, "How did the boys do it since they were competing with the best breeders in this section of the state?" Another farmer, whose son had won first premium with his hog, replied, "I'll tell you. Those hogs were fed and managed according to the best methods which they learned at school under the supervision of the teacher of agriculture." "If the instruction can help the boys that much, we older farmers ought to get some valuable information from the teacher," said the first farmer. The others present were of the same opinion and as a result the group of thirty farmers met fourteen times at the school to learn the best methods of raising hogs. Another teacher used the Farmer's Union as an entering wedge for starting his course. The members of the union met to buy fertilizer coöperatively. The question arose as to the kind and amount of fertilizer that should be used on each crop. Naturally, they asked the teacher of agriculture for advice. At a suggestion from the teacher the members of the union attended eight lessons on the use of fertilizers, most of the instruction being given by a fertilizer expert from the State Agricultural College.

The subject matter for the course in each school was determined by the needs and wishes of the members of

the class. No course covered more than three subjects and those teachers who confined their work to one or two subjects, hogs or cotton and corn for example, had better success.

Some of the subjects listed as being taught were fertilizers, soil improvement, crops, feeding and managing animals, cost accounting, and home conveniences. Some of the particular farming jobs which the farmers were shown how to do were, home-mixing of fertilizers, pruning and spraying orchards, computing fertilizer analysis, balancing rations, terracing, keeping of farm records and farm accounts, installation of water and light systems in the farm home, and numerous others.

The lectures, discussion, demonstration and field trips, (including training and doing certain jobs) were the most popular methods of instruction used. Charts and other illustrative material were used freely.

None of the teachers attempted to make lesson assignments in the sense that they are made for high school pupils. However, most of the teachers found that after members became interested they would read short assignments in farm journals, bulletins and books. The bulletins and farm journals proved to be more popular from the farmers' standpoint than the books. One desirable feature of these courses was that the farmers were put in touch with the different sources of agricultural information. When one farmer returned a copy of Dairy Farming by Eckles and Warren, he said, "I didn't know there was such a book printed on dairy farming. I want you to get me a copy for there is a lot in it which will help me in running the dairy." Two hundred and ten farmers were put on the mailing list of State and Federal agricultural bulletins for the first time. Sixty farmers placed orders for farm journals. None of these farmers had been receiving a farm paper of any kind. Notebooks were kept by at least fifty percent of the farmers.

The teaching in these courses are done by teachers of agriculture assisted by extension men, county agents and local farmers.

The farms on which the supervised practical work of the 281 farmers is carried on represent a total of twenty-nine thousand three hundred and five acres. This does not mean that the particular enterprises which the farmers are carrying on equals this many acres, but it does mean that the teacher of agriculture, in his regular visits to these farms, will be asked advice concerning most all of the problems that arise on the farm. In one community twenty farmers, whose average age is twenty-six, are keeping complete farm

records on their farms which represent a total of 3058 acres. These records are being kept under the supervision of the State Office of Farm Management. Another community is running a cotton variety test in coöperation with the State Agricultural Experiment Station for the purpose of determining the variety of cotton best adapted to the community. Still another community is running a fertilizer test with corn in coöperation with the Experiment Station. Thirty farmers in another community are home-mixing their fertilizers for the first time. 287 members of a coöperative buying and selling association, which does a monthly business of \$4500, are being guided in business by the instruction which the teacher of agriculture gave twenty of its members in a class which met twice a week for four weeks.

One man who took the part-time work said, "What I have learned from this course will enable me to save at least \$1000 in my farming operations this year."

One teacher commented as follows: "The part-time class was an inspiration. The last meeting we had thirty present and I didn't get through till nine o'clock, beginning at seven. I had the finest spirit or attitude you ever saw. Really I never enjoyed two hours more. The members are eager for all the information they can get. At each meeting I distributed books, bulletins and magazines with the subjects marked for the next week's lesson. Already the members have requested that the work be continued next year."

The following tabulation gives some interesting information concerning the short courses in the white schools:

PART-TIME CLASSES

ADULTS—WHITE SCHOOLS

Schools and Subjects Taught	Length of Courses in Lessons	Frequency of Meetings Each Week	Enrollment				Average Age of Class
			Owners	Tenants	Helpers	Total	
Aulander, Fertilizers	8	2	20	4	0	24	48
Conaritsia, Fertilizers	8	2	17	6	2	25	34
Hawfields, Animal Husbandry.....	14	2	34	0	5	39	39
Pleasant Garden, Soils and Fert.	10	3	23	1	4	28	45
Seaboard, Soils and Fertilizers....	8	1	44	0	0	44	37
Hiddenite, Soil Improvement.....	8	2	20	2	9	31	32
Sylvan, Fertilizers and Fruits.....	12	1	21	2	0	23	40
Castalia, Fertilizers and Crops....	8	1	34	20	0	54	36
Ednaville, Fertilizers and Fruit....	8	1	8	0	5	13	39
Total.....	x	x	221	35	25	281	38

PRACTICAL WORK—ADULTS

The practical work of the 281 adult farmers was conducted on their home farms representing a total area of 29,305 acres. Each farmer gave special attention to one or more particular phases of his farming operations, carrying on this work according to the instructions of and under the supervision of the teacher of agriculture. The following table indicates the kind of practical work carried on and the size of the farms on which it was carried on:

Kinds of Practical Work	Acreage Represented by the Farms on Which this Practical Work was Carried on
Growing Alfalfa	200 Acres
Growing Wheat	1070
Growing Soybeans	225
Growing Hay	260
Growing Orchard	1059
Growing Garden	795
Growing Clover	1125
Growing Barley	950
Growing Corn	2948
Growing Oats	750
Growing Legumes	250
Growing Cotton	1210
Growing Cowpeas	40
Corn seed patch	1385
Testing seed corn	375
Terracing	304
Testing Soil	300
Keeping cost accounts	2058
General Farming	2095
Seed selection	640
Fertilizer tests	1191
Swine	4365
Sheep	750
Poultry	2110
Dairy cattle	2100
Bees	750
Total	29305 Acres

NORTH CAROLINA'S TEACHER-TRAINING PROGRAM

(From the Sixteenth Annual Report of the Carnegie Foundation for the Advancement of Teaching, 1921, p. 85.)

IN 1919-20 NORTH CAROLINA carried into effect the first uniform certification provisions the state had ever known. At the same time a state fund of nearly \$4,000,000 was appropriated instead of less than three-quarters of a million hitherto available. All of this money was at once applied as the state's contribution to a schedule of teachers salaries cleverly devised to correspond with the new schedule of certificates, which in turn rested explicitly on a progressive schedule of training for teaching. This participation of the state fixed the minimum salaries and, in the lowest grades, also the maximum. Progress from a lower certificate to a higher certificate, and therefore to a higher salary was made possible only through additional training which the state proceeded to organ-

ize and to offer, free of charge, in the form of summer schools.

The resulting achievement of a single year has been unique in the history of American education. Upwards of 4000 white teachers attended summer schools of from six to twelve weeks in length at eleven different colleges in the state. All of these already possessed the equivalent of a high school education. Some 3000 additional students attended six to eight-week summer schools in eighty different centres provided for those having less than a complete high school training. Thus over 7000 out of the 12,600 white teachers of North Carolina were engaged during one summer in improving their training, and about the same situation prevailed among the colored teachers.

This takes no account of the large number who stopped teaching and went to school for the entire year, so that within the year the number possessing at least a high school education and six weeks of professional training rose from 7491 to 10,141 or 35 per cent, and the number of those possessing two years of collegiate training increased from 2368 to 4367 or 85 per cent.

This is certainly a remarkable performance. Its essential significance lies in no one item of the program, but simply in the fact that good teachers were treated as a single business problem, and all the factors involved were placed in the hands of one man, who had the intelligence to use them. Increased salary was made contingent upon better training and increased usefulness, as should be the case, and both were carefully checked by a rational plan of certification. Owing to the elementary nature of the original situation in North Carolina, the refinements of state control of teacher training do not appear, but the principle should be precisely the same in meeting the requirements of the more highly developed situation in New York, Illinois, or California. Incidentally, it should also be noted that North Carolina has given the country a striking example of what is probably the clearest, simplest, and wisest policy of applying state funds to public education.

WE FIND in ordinary school work that it is very undesirable to have over-age pupils in any classes. The better form of school organization today groups over-age pupils to themselves. This is for their own advantage. Reasons for this special classification in the mental work hold good in physical work, with the added fact that an immature and undeveloped boy should never be permitted to enter into a physical contest with a mature and well-developed man.—Supt. E. D. Pusey, Durham, N. C.